



OHIO DEPARTMENT OF TRANSPORTATION

ODOT's 1st Value-Based Design-Build Project

January 13, 2010



Association for Bridge Construction & Design



ASHE
Lake Erie



OHIO DEPARTMENT OF TRANSPORTATION

The Corridor

Craig Hebebrand





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The Process

Dave Lastovka





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The Bridge

Tim Keller





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The Corridor

Craig Hebebrand





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Community Involvement



Neighborhoods



Businesses



Institutions



Public Agencies



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Stakeholder Committee



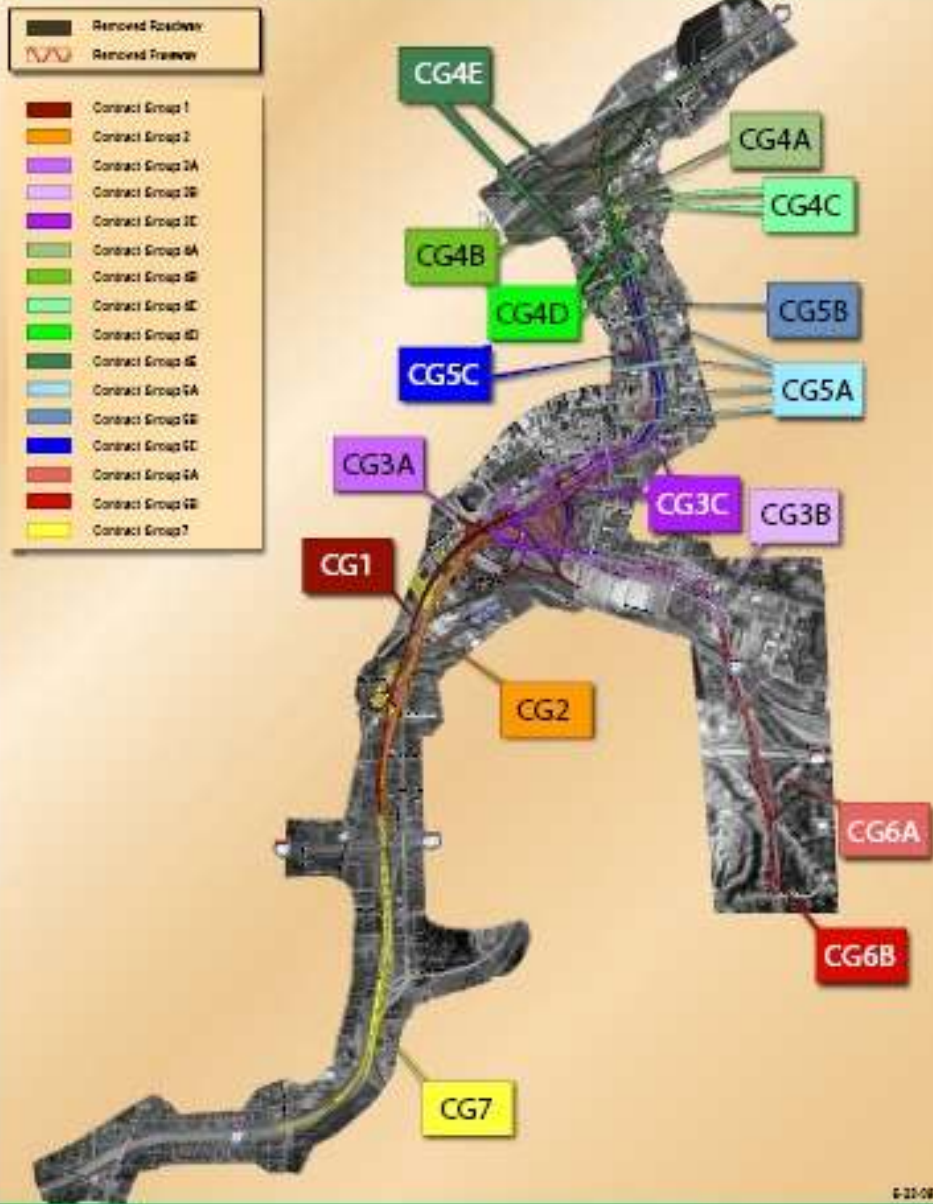


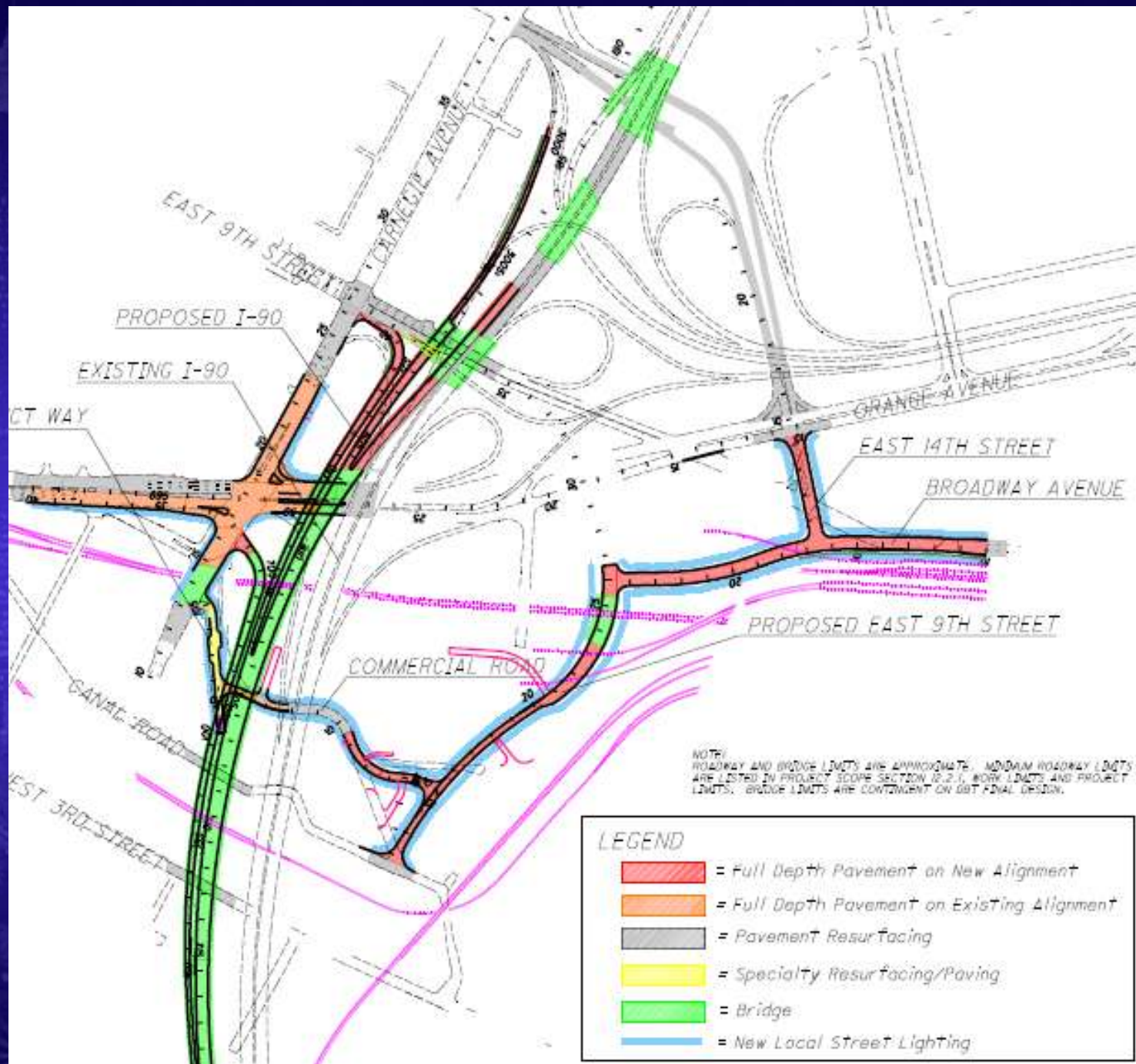
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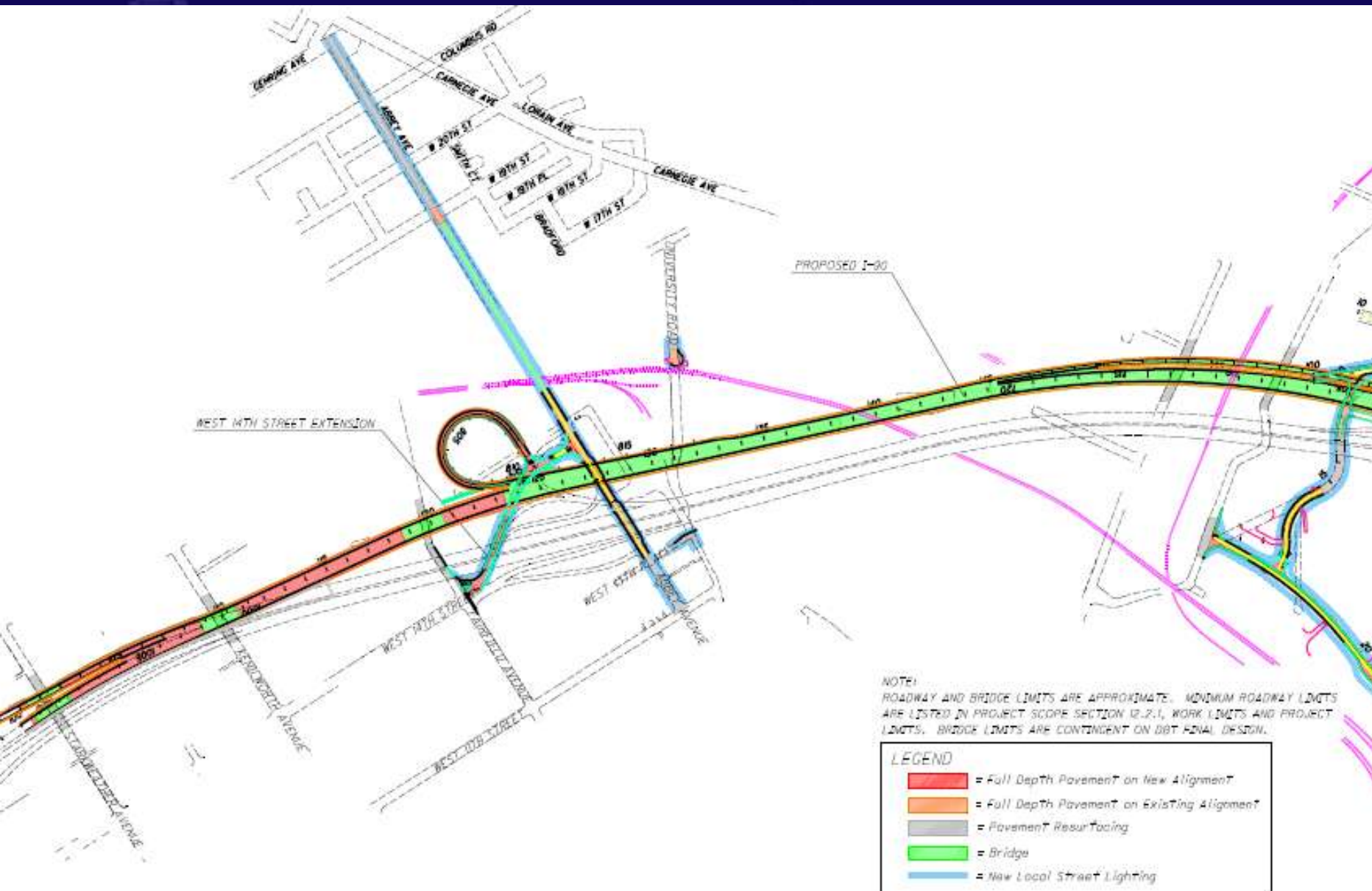
Workshops



Cleveland Innerbelt Project Implementation Plan







NOTE:
 ROADWAY AND BRIDGE LIMITS ARE APPROXIMATE. MINIMUM ROADWAY LIMITS
 ARE LISTED IN PROJECT SCOPE SECTION 12.2.1, WORK LIMITS AND PROJECT
 LIMITS. BRIDGE LIMITS ARE CONTINGENT ON DBT FINAL DESIGN.

LEGEND	
	= Full Depth Pavement on New Alignment
	= Full Depth Pavement on Existing Alignment
	= Pavement Resurfacing
	= Bridge
	= New Local Street Lighting



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Coordination with Local Initiatives





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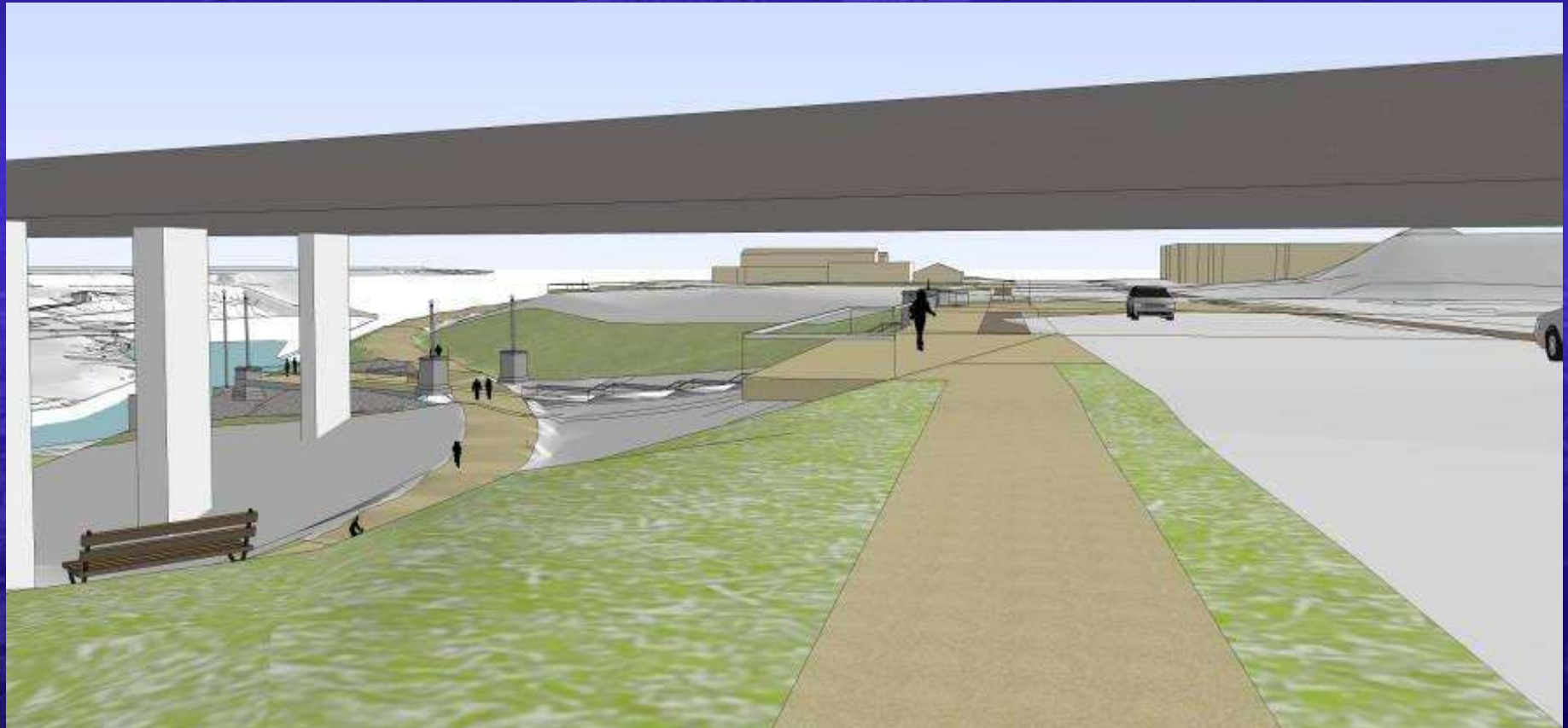
Understand Historical Context





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Context Sensitive Solutions





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Bicycle and Pedestrian:

Abbey Avenue – Bicycle Lanes (Tremont to Ohio City)

Towpath Trail – Multi-Purpose Trail (University Ave)

Lorain-Carnegie Bridge – Bicycle Lanes (Extend to Ontario St)

East 9th Street – Multi-purpose Trail (Canal Rd to Broadway)

Broadway – Multi-purpose Trail (E 9th St to Carnegie Ave)



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Transit:

Strongsville Park-N-Ride Lot Expansion: Completed

North Olmsted Park-N-Ride Lot Expansion: Completed

Westlake Park-N-Ride Lot Expansion: 2010

ODOT/GCRTA on-going discussions regarding potential additional capital and operational improvements

Promote OhioRideshare



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Sustainability:

Green Bulkhead (Habitat Pockets) – 2 Locations Eastside

Ring Chamber Pipes (Aeration) – Outfalls

Stormwater Separation – No new flow added to combined sewer system. Portion of existing stormwater diverted away from combined sewer system.

Stormwater Best Management Practices (BMP's)



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Sustainability:

Aesthetic Lighting to Use LED's

Traffic Signals to Use LED's

Sign Lighting to be Eliminated through use of High Reflectivity Sheeting



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Sustainability:

Recycled Materials – Construction Materials Recycled as a Matter of Economics (Concrete, Asphalt, Steel, etc.).

Reuse of Materials – Medina Block Pavers and Sandstone Blocks reused on project or stored for reuse along Towpath Trail.



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Maintenance of Traffic:

Temporary Additional Lanes on I-490 (I-90 to I-77) and on I-77 (I-490 to I-90).

Alternate Route Plan or ARP (I-490 & I-77) must be in place whenever longer term lane closures are implemented on I-90.

Minimum of 2 lanes in each direction must be maintained on I-90 at all times (except when overnight or weekend closures are permitted). In all cases the ARP's must be in place first.



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Project Funding:

\$85 Million in ARRA Funds, including \$8M Million in ARRA Enhancement Funds.

\$97 Million in Federal Earmarked Funds, including \$77 Million “above the line.”



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Post Award Stakeholder Involvement:

DBT will be required to provide detailed aesthetic options to the stakeholders at a series of meetings:

Stakeholder Group

General Public

Design Review Committee

City Planning Commission



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Project Expectations:

Maximize Positive Impact

Superior Design & Construction Expertise

Outstanding Aesthetics

Creative Ideas for Sustainability

Excellent Community Relations



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The Process

Dave Lastovka





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Design-Build Advantages:

Reduce Delivery Time: Design & Construction Overlap

Improve Constructability: Designed to Contractor's Strengths

Optimize Costs: Market Based Material Selection

Reduce Conflicts: Single Entity Responsible for Design and Construction



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ODOT's 1st Value-Based Design-Build Project:

Since 1996 ODOT has used a Low-Bid Design Build Process to Deliver 80 Projects worth over \$400 million

2009 – ODOT received legislative approval to develop and use a Value-Based Design-Build Process and an increase in the biennium Design-Build limit from \$250 million to \$1 billion.



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Request for Qualifications (RFQs) – Feb 2010



Statement of Qualifications (SOQ) – March 2010



Short List Design Build Teams (DBTs) – March 2010



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Short List Design Build Teams (DBTs)-March 2010



Request for Proposal (RFP) – March 2010



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Request for Proposal (RFP) – March 2010



Prepare Technical and Price Proposal
March 2010 – August 2010

Includes:

Prebid Questions

Alternate Technical Concepts (ATC)

Addenda



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Submit Technical and Price Proposals—Aug 2010



Evaluation of Technical Proposal – Scoring
Conduct Oral Interviews with DBTs
August 2010



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ODOT Announces Technical Scores &
Opens Price Proposals – September 2010



ODOT Awards Contract
September 2010



Design & Construction
October 2010 – 2013/2014



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SELECTION CRITERIA

- **Statements of Qualifications (SOQ)**
 - **Evaluation Based on:**
 - **Project Understanding and Approach**
 - **Design Build Project Team**
 - **Design Build Team Capabilities**



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SELECTION CRITERIA

- **Technical Proposals**
 - **Evaluation based on:**
 - A. Sustainability and Green Initiatives**
 - B. Design Management**
 - C. Proposed Design**
 - D. Construction Management**
 - E. Construction**



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SELECTION CRITERIA

- **Technical Proposals**

- **Evaluation based on:**

- F. Quality Management**

- G. Schedule**

- H. Community Relations**

- I. On the Job Training**

- J. Prequalification (not scored)**

- K. I-90 Viaduct Bridge Aesthetics (Bonus)**



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- **Alternate Technical Concepts**
 - A change to the project scope which provides a solution that is equal to or better than what is required by the scope, as determined by the Department.
 - Can not require additional Design Exceptions or changes to the Interchange Justification Study



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- **Alternate Technical Concepts**
 - **Must include sufficient backup documentation**
 - **Can include one-on-one meetings with the Department to discuss the ATC**
 - **Can include Right of Way acquisition**
 - **ATC language in the Selection Criteria includes discussion of “Trade Secrets”**



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- **Design Build Package includes:**
 - **Project Scope**
 - **Selection Criteria**
 - **Proposal Notes**
- **Document Inventory/Appendix – Items are either Contract Documents, Basic Configuration, Reference Documents**
- **Electronic Files – Including Microstation File & Geopak files**



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ODOT Management of Project

- **Key Decision Making Positions will be ODOT Staff**
- **Project Management Team will be supplemented with consultants**
 - **Michael Baker – Design Support**
 - **TBD – DBE Outreach (Dec 2009 Programmatic)**
 - **TBD – Project Controls (CPM Scheduling, EEOCC/PWC/ARRA, Document Management, etc.) – (April 2010 Programmatic)**
 - **TBD – Construction Inspection (April 2010)**
 - **TBD – Material Inspection (April 2010)**
 -



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KEY PROCESS ITEMS FOR VALUE BASED DB

- **Payment for Preparation of Responsive Preliminary Design Concept**
 - **Currently set at \$1,000,000**
- **ARRA Reporting Requirements**
- **Critical Path Method Progress Schedule (Cost Loaded)**
- **Price Adjustments: Fuel, Steel, Asphalt**



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The Bridge

Tim Keller





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Existing Viaduct Bridge

- **Maintain existing viaduct bridge until commencement of Construction Contract Group 2 (CCG2)**
- **Numerous projects to repair existing truss**
 - **Stiffening gusset plates**
 - **Stiffening/repairs to truss members**
 - **Repairs to floor beams and cantilevers brackets**
- **Removal of the W. 14 th. St. widening girder**



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New Viaduct Bridge

- **CCG1**

- **Build new bridge on new alignment**
- **Alignment is north of existing bridge**
- **West end slope stability**
- **When completed move east bound and west bound traffic to the new bridge**



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New Bridge

- **CCG2**
 - **Remove existing bridge**
 - **Build new bridge on current alignment (minor adjustment of alignment west of River)**
 - **When completed move west bound traffic to new bridge built in CCG1 and east bound traffic to the new bridge built in CCG2.**



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New Bridge – CCG1

- **Value Based, Two step Design/Build**
- **Technical Proposal submittal for all bridges is approximately to the level of a Stage 1 submittal**



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Bridges – CCG1

- **15 bridges will be replaced/rehabilitated in addition to the Viaduct Bridge**
 - **New bridges at Starkweather Ave., Kenilworth Ave., and Fairfield west of Viaduct**
 - **Rehabilitated Bridge at Abbey west of Viaduct**
 - **Rehabilitated Bridges at E. 14th, E. 9th, Ramp Bridge, and Carnegie Ave. east of Viaduct**
 - **New bridge at E. 9th Street east of Viaduct**



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Viaduct Bridge – CCG1

- **Main Span portion is approximately 3,200 ft. long**
- **Entire Viaduct Bridge is approximately 4,700 ft. long**
- **Main Span portion is to have haunched members.**
- **Entire Viaduct Bridge is to have a consistent material type.**
- **Entire main span portion is to have consistent superstructure shape.**



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Viaduct Bridge – CCG1

- **Viaduct Bridge - Four structure types for main span will not require an Alt. Technical Proposal (ATC)**
 - **Steel Girder**
 - **Steel Box Girder**
 - **Post-tensioned segmental box**
 - **Prestressed or post-tensioned concrete bulb-tee or I-girder**
- **All other structure types for main span bridge will require an ATC.**



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CCG1 – Special Project Features

- **Meeting the bridge aesthetic goals will be part of technical scoring**
 - **Day and night renderings of the Viaduct Bridge will be included with the Technical Proposal**
- **Independent Quality Firm**
- **West slope solution is prescriptive**



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Thank You

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